

```

1 GENERAL INFORMATION:
2 APPLICANT: WILLIAMS, JAMES A.
3 TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
4 TITLE OF INVENTION: NEUROTOXIN
5 NUMBER OF SEQUENCES: 30
6 CORRESPONDENCE ADDRESS:
7 ADDRESSES: MEDLEN & CARROLL, LLP
8 STREET: 220 MONTGOMERY STREET, SUITE 2200
9 CITY: SAN FRANCISCO
10 STATE: CALIFORNIA
11 COUNTRY: USA
12 ZIP: 94104
13
14 COMPUTER READABLE FORM:
15 MEDIUM TYPE: Floppy disk
16 COMPUTER: IBM PC compatible
17 OPERATING SYSTEM: PC-DOS/MS-DOS
18 SOFTWARE: Patentin Release #1.0, Version #1.30
19
20 CURRENT APPLICATION DATA:
21 APPLICATION NUMBER: US/08/405.496A
22 FILING DATE: 16-MAR-1995
23 CLASSIFICATION: 424
24
25 PRIOR APPLICATION DATA:
26 APPLICATION NUMBER: US 08/329,154
27 FILING DATE: 25-OCT-1994
28
29 PRIORITY APPLICATION DATA:
30 APPLICATION NUMBER: US 08/161,907
31 FILING DATE: 02-DEC-1993
32
33 PRIOR APPLICATION DATA:
34 APPLICATION NUMBER: US 07/985,321
35 FILING DATE: 04-DEC-1992
36
37 PRIOR APPLICATION DATA:
38 APPLICATION NUMBER: US 07/429,791
39 FILING DATE: 31-OCT-1989
40
41 ATTORNEY/AGENT INFORMATION:
42 NAME: INGOLIA, DIANE E.
43
44 REGISTRATION NUMBER: 40,027
45 REFERENCE/DOCKET NUMBER: OPHD-01308
46
47 TELECOMMUNICATION INFORMATION:
48 TELEPHONE: (415) 705-8410
49 TELEFAX: (415) 397-8338
50
51 INFORMATION FOR SEQ ID NO: 25:
52 SEQUENCE CHARACTERISTICS:
53 LENGTH: 1402 base pairs
54 TYPE: nucleic acid
55 STRANDEDNESS: double
56 TOPOLOGY: linear
57 MOLECULE TYPE: DNA (genomic)
58 FEATURE:
59 NAME/KEY: CDS
60 LOCATION: 1..1386
61
62 15-08-405-496A-25

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Best Local Similarity	99.9%	pred. NO. 0:		
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Db	324	CACCTCTCTGTGATCCGTATCCGGAATATCTCAACTCCATCTCTCTGAAACAATGAATA	389
QY	312	caacatcaacaactgcatggaaacaactctggttggaaagtaactctgaaactcagggtg	371
Db	384	CACCATCATCAACTGCATGGAAACAATCTCGTTGGAAAGTATCTCTGAACTACCGTGA	443
QY	372	aactcatctggactctggaggaactcaggaatacaactcaaacagcgtgttattcaaaactc	431
Db	444	AATCATCTGGAACTCTGCAAGGACACTCAGCAAAATCAACACCGTGTGTTCAAATACTC	509
QY	432	tcagatgataaacaatctctgactacatacaaatcgtctggaactcttctgctaacatccaa	491
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QY	492	tgtcttgaaataactccaaataactacatacaacggcgtctgtatcgaccagaaacgactctc	551
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Db	684	CATCTACCGCTCATCTGGATCTGAATTAATTAATCTCAATCTGTCTGCACAAAGAACTGAACGAA	749
QY	672	gaaatacaaaagcctgtacgaacaacacagctccantctctggaatctctggaagaactcttctgggg	731
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QY	912	caagaatacgcgtctgtgtgaacaagacaactatcgttctgcaacaatgatcgtgtataact	971
Db	984	CAAGAAATACGGCTCTGGTAAACAGGACAAATATGCTTCCGACAAATGATCTGTGTATCAT	1049
QY	972	caatgtctgtagttaagaacaagaataacgcttggctaccaactcttctcagcctgggtct	1031
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QY	1092	aatgaaatcaagaagacacacagggatcacatacaaaatgcaaaatgaactctcagagcaa	1151
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QY	1152	caatggttaacgaatactcgttttcaatcgtttccaccaggttcaacaataactcgtataactggt	1211
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QY	1212	tgtctccaactggatacaatctgtatgatacgaacgtctctctcgcactctgggttctgcttg	1271
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Db	1344	GGAGTTTATCCCGGTTGATGACGCGTTTGGGGTGAACGTCGCGTGTAA	1389

COUNTRY: UNITED STATES OF AMERICA
ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30

Query Match 98.49; Score 1311; DB 1; Length 1402;
Best Local Similarity 100.09; Pred. No. 0;
Matches 1311; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB	CTGCTACGAATCCCAATCACTGATCGACCTGTCTGTCTACGCTTCCAAAATCAACATC	198
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QY	TCTTCCAAAATCGAAGTTACTCTCGAAGAAATGCTATCGTATCAAACTCATGTACGAATC	255
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QY	TCTCACCCTCTCTCGATCCGTAATCCCGAAATCACTTCAACTCCATCTCTCTCGAACAAT	315
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RESULT 5
US-08-405-496A-25
; Sequence 25, Application US/08405496A
; Patent No. 5919665

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1 PRIOR APPLICATION DATA:
2 APPLICATION NUMBER: US 08/405,496
3 FILING DATE: 10-MAR-1995
4 PRIOR APPLICATION DATA:
5 APPLICATION NUMBER: US 08/339,154
6 FILING DATE: 25-OCT-1994
7 PRIOR APPLICATION DATA:
8 APPLICATION NUMBER: US 08/161,907
9 FILING DATE: 02-DEC-1993
10 PRIOR APPLICATION DATA:
11 APPLICATION NUMBER: US 07/985,321
12 FILING DATE: 04-DEC-1992
13 PRIOR APPLICATION DATA:
14 APPLICATION NUMBER: US 07/439,791
15 FILING DATE: 31-OCT-1989
16 ATTORNEY/AGENT INFORMATION:
17 NAME: INGOLIA, DIANE E.
18 REGISTRATION NUMBER: 40,037
19 REFERENCE/DOCKET NUMBER: OPND-0176/01
20 TELECOMMUNICATION INFORMATION:
21 TELEPHONE: (415) 705-8410
22 TELEFAX: (415) 397-8338
23 INFORMATION FOR SEQ ID NO: 22:
24 SEQUENCE CHARACTERISTICS:
25 LENGTH: 1330 base pairs
26 TYPE: nucleic acid
27 STRANDEDNESS: double
28 TOPOLOGY: linear
29 -MOLECULE TYPE: DNA (genomic)
30 FEATURE:
31 NAME/KEY: CDS
32 LOCATION: 1..1314
33 US-08-915-136-22

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Query Match	98.6%	Score 1304.4;	DB 4;	Length 1330;
Best Local Similarity	99.9%	Pred. No. 0;		
Matches 1305; Conservative	0;	Mismatches	1;	Indels 0; Gaps 0;

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552	DB		
552	DB	CAATCTGGGTACATATCCACGGCTCTTAATACATCAATGTATTAACATCGACGGTGTCTGTGA	611
612	OY	cactcaacgctacatctggatcaaatctctcaatctggtctgcacaaagaactgaacgaaaa	671
612	DB		
612	DB	CACCTACCCGCTACATCTCGGATCAAAATACGTTCAATCTGTTCGACAAAGAACTCAACGAAAA	671
672	OY	agaaatcaaaagaacgtgtaagacaaacaggtcccaatcttggttatctctgaagaactctctggg	731
672	DB		
672	DB	AGAAATCAAAAGACCGTGTACGACAAACAGTCCAAATCTGTGTAATCTCTGAAGACTCTCTGGG	731
732	OY	tgactactcgcagctagacaaaacgctactacatgcctgaactctgtaagctccgcgaacaata	791
732	DB		
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792	OY	cgttgacgtcaacaatctaggctatccgcggttacaatgtaacctgaagaagctcgcgcggttc	851
792	DB		
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852	OY	tgctatgactaccaaactctacactgaactcttccctgtaccggtgtaccgaatctcaaatctcat	911
852	DB		
852	DB	TGTTATGACTACCAACATCTACCTCAAGCTCTTCCCTGTACCGGTGGTACCAAAATTCATCAT	911
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912	DB		
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972	OY	caatgtgttgatgtaagacaanaagaataccctctggctaccaaatgctctctcaagctggagtg	1031
972	DB		
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1032	OY	agaaagactctgtctgtcttggaatcccgagcttgagttaactctgtctcaagtgagttgt	1091
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RESULT 4
US-480-004-25
Sequence 35 Application US/0848060A
Patent No. 5736139
GENERAL INFORMATION:
APPLICANT: KINK, JOHN A.
APPLICANT: THALLEY, BRUCE S.
APPLICANT: PADHVE, NISHA V.
APPLICANT: FIRCA, JOSEPH R.
APPLICANT: STAFFORD, DOUGLAS C.
TITLE OF INVENTION: VACCINE AND ANTIPOXIN FOR TREATMENT AND PREVENTION OF C. DIFFICILE DISEASE
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: MEDLEN & CARROLL, LLP
STREET: 220 MONTGOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
STATE: CALIFORNIA

COUNTRY: UNITED STATES OF AMERICA
ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTia Release 11.0, Version 11.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,604A
FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/422,711
FILING DATE: 14-APR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/405,496
FILING DATE: 16-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/329,154
FILING DATE: 25-OCT-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/161,907
FILING DATE: 02-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/985,321
FILING DATE: 04-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/429,791
FILING DATE: 31-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: INGOLIA, DIANE E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPND-01763
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 1402 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1386
US-08-480-604A-25

Query Match 98.6%; Score 1304.4; DB 1; Length 1402;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 1305; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
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Oy 72 clacgaatccaaatcacatgacgactgctcgtcagcttcacaaatcaaatcgaatcgctc 131
Db 144 CTACGAATCCAAATCACTGATGACCTGTCTGCTACCTTCCAAATCAATCAATCGCTC 203
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: Patent No. 5919665

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Total number of hits satisfying chosen parameters: 767066

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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4	1304.4	98.6	1402	1	US-08-480-604A-25
5	1304.4	98.6	1402	2	US-08-405-496A-25
6	1304.4	98.6	1402	4	US-08-915-136-25
7	726.4	54.9	3891	1	US-08-480-604A-27
8	726.4	54.9	3891	2	US-08-405-496A-27
9	726.4	54.9	3891	4	US-08-915-136-27
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5915665

28	36.8	2.8	1430	1	US-08-276-452A-25	Sequence 25, Appl
29	36.8	2.8	1430	2	US-08-798-744-25	Sequence 25, Appl
30	34.6	2.6	2094	3	US-08-714-918-87	Sequence 87, Appl
31	34.6	2.6	2094	4	US-09-265-315-87	Sequence 87, Appl
32	34.6	2.6	2094	4	US-09-265-315-87	Sequence 87, Appl
33	34.6	2.6	2094	4	US-09-266-417-87	Sequence 87, Appl
34	34.4	2.6	951	1	US-07-855-412B-2	Sequence 2, Appl
35	34.4	2.6	951	2	US-08-308-887A-2	Sequence 2, Appl
36	34.4	2.6	951	2	US-08-881-09A-2	Sequence 2, Appl
37	34.2	2.6	198	5	PCT-US95-10568-1	Sequence 1, Appl
38	34.2	2.6	198	5	PCT-US95-10568-2	Sequence 1, Appl
39	34.2	2.6	198	5	PCT-US95-10568-3	Sequence 3, Appl
40	34.2	2.6	3292	1	US-07-814-964-12	Sequence 4, Appl
41	34.2	2.6	3292	1	US-08-258-442-12	Sequence 12, Appl
42	34.2	2.6	3292	1	US-08-328-809-7	Sequence 7, Appl
43	34.2	2.6	3292	5	PCT-US92-11107-12	Sequence 12, Appl
44	34.2	2.6	3292	5	US-09-134-607A-8	Sequence 8, Appl
45	34	2.6	1666	4		

ALIGNMENTS

RESULT 1
US-08-480-604A-22
Sequence 25, Appl
Patent No. 5736139

GENERAL INFORMATION:

APPLICANT: KINK, JOHN A.

APPLICANT: THALLEY, BRUCE S.

APPLICANT: PADHYE, NISHA V.

APPLICANT: FIRCA, JOSEPH R.

APPLICANT: STAFFORD, DOUGLAS C.

TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND

PREVENTION OF C. DIFFICILE DISEASE

NUMBER OF SEQUENCES: 32

CORRESPONDENCE ADDRESS:

ADDRESSEE: MEDLEN & CARROLL, LLP

STREET: 220 MONTGOMERY STREET, SUITE 2200

CITY: SAN FRANCISCO

STATE: CALIFORNIA

COUNTRY: UNITED STATES OF AMERICA

ZIP: 94104

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/480,604A

FILING DATE: 07-JUN-1995

CLASSIFICATION: 424

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/422,711

FILING DATE: 14-APR-1995

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/405,496

FILING DATE: 16-MAR-1995

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/329,154

FILING DATE: 25-OCT-1994

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/161,907

FILING DATE: 02-DEC-1993

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/985,321

FILING DATE: 04-DEC-1992

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/429,791

FILING DATE: 31-OCT-1989

ATTORNEY/AGENT INFORMATION:

NAME: INGOLIA, DIANE E.

REGISTRATION NUMBER: 40,027

Handwritten signature/initials

GenCore version 4.5
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OK nucleic - nucleic search, using sw model

Run on: September 16, 2002, 21:29:41 ; Search time 7254.67 Seconds
(without alignments)
3816.274 Million cell updates/sec

Title: US-09-611-419A-3

Perfect score: 1333

Sequence: 1 gaattcaaacagatgtctac.....aacgtccgctgaagattc 1333

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 1797636 seqs, 10463268293 residues

Total number of hits satisfying chosen parameters: 3595312

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database:

GenBank:
1: gb_ba.*
2: gb_hg.*
3: gb_in.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query	Score	Match	Length	DB	ID	Description
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2	1304.4	98.6	1330	6	AR169140	Sequence
3	1304.4	98.6	1330	6	AX036243	Sequence
4	1304.4	98.6	1338	12	U222362	Synthetic b
5	1304.4	98.6	1402	6	AR000030	Sequence
6	1304.4	98.6	1402	6	AR169141	Sequence
7	1304.4	98.6	1402	6	AX036246	Sequence
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9	727.6	55.0	4292	1	CBOTAG	Sequence
10	726.4	54.9	3891	6	AR169142	Sequence
11	726.4	54.9	3891	6	AR169142	Sequence
12	726.4	54.9	3891	6	AX036248	Sequence
13	662	50.0	4067	1	CBMTOXA	Sequence
14	423.2	32.0	1299	12	AP251281	Sequence
15	421.6	31.9	1313	6	A58946	Synthetic
16	328	17.2	4073	1	CBOMTF	Sequence
17	327	17.2	1293	6	A58945	Sequence
18	327	17.2	4199	1	CLOBOVT	Sequence
19	327	17.2	4209	1	CBOMTFG	Sequence
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25	195.8	14.8	3835	1	AB037709	Clostridium
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29	195.8	14.8	3835	1	AB037713	Clostridium
30	195.8	14.8	3835	1	AB037714	Clostridium
31	195.8	14.8	4030	1	CBNTTE	Clostridium
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33	194.2	14.7	4017	6	AX088262	Sequence
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35	191	14.4	3949	1	CBNTTE	Clostridium
36	180.8	13.7	4234	1	CLONEUTOMF	Clostridium
37	180.8	13.7	9325	1	CBY13631	Clostridium
38	166.4	12.6	1359	6	I28431	Sequence
39	166.4	12.6	3712	6	A49987	Sequence
40	166.4	12.6	3754	6	A37074	Sequence
41	166.4	12.6	3754	6	A42478	Sequence
42	166.4	12.6	3769	6	A37075	Sequence
43	166.4	12.6	3769	6	A49988	Sequence
44	166.4	12.6	4366	6	A42484	Sequence
45	166.4	12.6	4378	6	A42481	Sequence

ALIGNMENTS

RESULT	LOCUS	DEFINITION	ACCESSION	VERSION	KEYWORDS	SOURCE	ORGANISM	REFERENCE	AUTHORS	TITLE	JOURNAL	FEATURES	BASE COUNT	ORIGIN
1	AR000029	Sequence 22 from patent US 5736139	AR000029	AR000029.1	GI:3962560	Unknown	Unknown	Unclassified	1 (bases 1 to 1330)	Kink, J.A., Thalley, B.S., Stafford, D.C., Pirca, J.R. and Padhye, N.V.	Treatment of Clostridium difficile induced disease	Patent: US 5736139-A 22 07-APR-1998	Location/Qualifiers	1. 1330
													400 a	339 c 246 g 345 t

SEQID 3

Query Match 98.6% Score 1304.4; DB 6; Length 1330;
Best Local Similarity 99.9%; Pred. No. 0;

REFERENCE/DOCKET NUMBER: OPHD-01763

TELECOMMUNICATION INFORMATION:

TELEPHONE: (415) 705-84

TELEFAX: (415) 397-8338

INFORMATION FOR SEQ ID NO: 22:

SEQUENCE CHARACTERISTICS:

LENGTH: 1330 base pairs

TYPE: nucleic acid

STRANDEDNESS: double

TOPOLOGY: Linear

MOLECULE TYPE: DNA (genomic)
FEATURE:

[illegible]NAME/KEY: CDS
LOCATION: 1

DOCTRINE: 1.1.1314
8-480-604A-22

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Query Match 98.6%; Score 1304.4; DB 1; Length 1330;
Best Local Similarity 99.9%; Pred. NO. 0;
Matches 1305; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

[illegible]

RESULT

US-08-405-496A-22 Application US/08405496A
Sequence 00000000
GENERAL INFORMATION:
APPLICANT: WILLIAMS, JAMES A.
TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
TITLE OF INVENTION: NEUROTOXIN
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSER: MEDLEN & CARROLL, LLP
STREET: 220 MONTGOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
STATE: CALIFORNIA
COUNTRY: USA
ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/405.496A
FILING DATE: 16-MAR-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/329,154
FILING DATE: 25-OCT-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/161,907
FILING DATE: 02-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/985,321
FILING DATE: 04-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/429,791

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: PILING DATE: 31-OCT-1989
: ATTORNEY/AGENT INFORMATION:
: NAME: INGOLIA, DIANE E.
: REGISTRATION NUMBER: 40,027
: REFERENCE/DOCKET NUMBER: OPHD-01308
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 705-8410
: TELEFAX: (415) 997-8338
: INFORMATION FOR SEQ ID NO: 22:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 1330 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: DNA (genomic)
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 1..1314
: US-08-405-495A-22

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Query Match	98.6%	Score 1304.4	DB 2	Length 1330
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QY	72	ctacgaatccaatcaactcgatcgacctgtctcgctcagcgcttcacaaatcacatcgattc	131	
DB	72	CTACGAATCCAATCACTGTGATCGACTGTCTCGCTACGCTTCCAAATCCAACTCGGPTC	131	
QY	132	caagcttaacttcgatctcgatcgacacgaagaatcagatccagctcttcacatcggaattctc	191	
DB	132	TAAAGTTAACTTGATCGGATCCGACGAAGAAATCAGATCCAGCTGTTCAATCTGGGAATCTTC	191	
QY	192	caaaatcgaagcttatctctcgaggaatcgctatcgatcacaaactctatctacgaaactctctc	251	
DB	192	CAAAATCGAAGTTATCTCTGAAGAAATCGTATCGTATACAACTCTATGTACGAATCACTTCTC	251	
QY	252	caactctcttggaatcgttatctccggaataacttcaacttcaactctctctctgaaatgaata	311	
DB	252	CACCTCTCTTGGAATCGGTATCCGGAATACTTCAATCTCCATCTCTCTGGAACAATGAATA	311	
QY	312	caacatcatcaactgcattggaacacaactctctggttggaagtgatctctcgaactcaggtgc	371	
DB	312	CACCATCATCAACTGCATATGGAACAACAAATCTGGTTGGAAAGTATCTCTGAACTACGGTGA	371	
QY	372	aatcaactggaactctcgagagcactcagggaatacaaacacagcgttggttatcaaatctc	431	
DB	372	AAATCATCTGGACTCTGCGAGGACACTCAGGAAATCAAAACAGCTGTTGTATCAAAATACTC	431	
QY	432	tcagatgatcaacatctctcgatcacatcaatcgctcggaatctctggtttcacatcaccaaac	491	
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QY	492	tcgtcttgaaataacttccaaactctcacatcaagggcgtctgatcgaccaggaatccgatctc	551	
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QY	612	cactctccgcgtacatctcggatcaaaacactctcaattcttcgacaaagaactgaacgaaa	671	
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QY	672	agaaatcaaaagacactgtacgacaaacagtcctcaattcttggttatctctgaaagctctctgggg	731	
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QY	792	cgttgacgtcaacaatgtaggatctccgcggtttacatgtaccctgaagaagctcgcgtggttc	851
Db	792	cgttgacgtcaacaatgtaggatctccgcggtttacatgtacctgaagaagctccgcggtggttc	851
QY	852	tgattagctacacaactctaccctgaactcttcctgtaccctgacgtgacacaatctcatct	911
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QY	912	caagaatacgcgtctcgttgtaacagaagacaatactcgttcgcacaacaatgactcgtgtatacat	971
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QY	1092	aatgaataccaagaagcgcacaggttatcactacaacaatgcacaaatgcacaaatgcacagaca	1151
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QY	1152	caatcgtgaacgatacgtggtttcatcggttccacaggttcaacaataatcgtcaaatcgtt	1211
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QY	1212	tgcttccaactgtacaaatcgttcagatgaacgcttctctcgtcactcgtggttgcctcgt	1271
Db	1212	tgcttccaactgtacaaatcgttcagatgaacgcttctctcgtcactcgtggttgcctcgt	1271
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REPLY 3
US-08-915-136-22
Sequence 22 Application US/08915136
Patent No. 6290960
GENERAL INFORMATION:
APPLICANT: KINK, JOHN A.
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APPLICANT: PADHAY, NISHA V.
APPLICANT: FIRCA, JOSEPH R.
APPLICANT: STAFFORD, DOUGLAS C.
TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
PREVENTION OF C. DIFFICILE DISEASE
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: MEDLEN & CARROLL, LLP
STREET: 220 MONTGOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
STATE: CALIFORNIA
COUNTRY: UNITED STATES OF AMERICA
ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/915,136
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PRIOR APPLICATION NUMBER:
APPLICATION NUMBER: 08/480,604
FILING DATE:

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Oy 76 ctgctgacgaatccaatcacctgacgctgtctgctacgcttcccaaatcaacac 135
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 AR000030 Locus AR000030 1402 bp DNA linear PAT 04-DEC-1998
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 VERSION AR000030.1 GI:3962561
 KEYWORDS
 SOURCE Unknown.
 ORGANISM Unknown.
 REFERENCE 1 (bases 1 to 1402)
 AUTHORS Kink, J.A., Thalley, B.S., Stafford, D.C., Firca, J.R. and Padhye, N.V.
 TITLE Treatment of Clostridium difficile induced disease
 JOURNAL Patent: US 5736139-A 25 07-APR-1998;
 FEATURES Location/Qualifiers
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 Query Match 98.4%; Score 1311; DB 6; Length 1402;
 Best Local Similarity 100.0%; Pred. No. 0;
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 Dt 79 CGTCTGCTCTACTCTCACTGAATACATCAAGAACATCATCACTTCCATCTCTGAAC 138